



Product Information Bulletin

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GeoSpec™ Fill Material Properties

GeoSpec fill material is a rigid closed cell foam plastic manufactured from moulded expanded polystyrene (EPS) block. Traditional earth fill materials are generally more than 100 times heavier than GeoSpec fill material and can cause settlement or instability of underlying soils.

GeoSpec fill material, in either block or board form, is used in ground fill applications where a lightweight fill material or compressible inclusion is required to reduce stresses on underlying or adjoining soils/structures. Typical applications include lightweight fill material for landscaping and road embankment construction or as a compressible inclusion behind retaining walls.

The material property values below are intended to provide general guidance in selecting GeoSpec fill material type. The type designations coincide with those provided in ASTM D6817, **Standard Specification for Rigid Cellular Polystyrene Geofoam**.

Plasti-Fab also provides design assistance in selecting the required GeoSpec fill material for specific applications.

Material Property	Test Method	Units	ASTM D6817-02 Type Designations					
			12	15	19	22	24	29
Minimum Density	ASTM C303	kg/m ³	12	15	19	22	24	29
Compressive Resistance <i>Minimum @ 1% Deformation</i>	ASTM D 1621 Procedure A	kPa	15	25	40	50	65	75
Compressive Resistance <i>Minimum @ 5% Deformation</i>		kPa	35	55	90	115	140	170
Flexural Strength <i>Minimum</i>	ASTM C 203 Procedure B	kPa	70	170	210	240	280	345
Dimensional Stability <i>Maximum</i>	ASTM D 2126 7 Days @ 70 ± 2°C	% Linear Change	1.5	1.5	1.5	1.5	1.5	1.5
Water Absorption <i>Maximum</i>	ASTM D 2842	% By volume	7.0	6.0	5.0	4.0	3.0	2.0
Limiting Oxygen Index <i>Minimum</i>	ASTM D 2863	%	24	24	24	24	24	24